

**TRAUMA-RELATED NIGHTMARES AMONG AMERICAN INDIAN
VETERANS: VIEWS FROM THE DREAM CATCHER**

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Abstract: Dreams hold particular relevance in mental health work with American Indians (AIs). Nightmares are a common sequelae of trauma and a frequent defining feature of post-traumatic stress disorder (PTSD). Despite mounting evidence of the prevalence of trauma and PTSD among AIs and the important cultural role of dreams, no work to date has directly examined nightmares in trauma. Drawing from epidemiological and clinical sources, data are presented about nightmares among Northern Plains AI veterans. Nightmares are common among these veterans: 97% of combat veterans with PTSD report nightmares. These rates are higher than rates among other veteran populations. The frequency of nightmares and sleep disturbances increases with trauma and PTSD severity in this population. Qualitative materials, in the form of a brief cultural overview and a case presentation, are included to illustrate clinical and cultural contexts of nightmares in the Northern Plains. Clinicians working with this population should be aware of the high frequency and cultural context of nightmares for AI veterans. In order to improve culturally appropriate care, further research is needed to better understand the frequency, meaning, and context of nightmares in trauma and PTSD for AI populations.

Introduction

Dreams hold particular relevance in mental health work with American Indians (AIs). There is a tremendous diversity and variability in the meaning, role, and context of dreams among different tribes. Despite this diversity, dreams serve important spiritual and emotional functions in most traditional AI societies (Devereux & Gulati, 1980). The vision quest, which continues to be practiced by a number of tribes, is part of a traditional ritual marking transition into adulthood and involves communication with the spirits through dreams and waking visions (Tedlock, 2004). The dream catcher is a decorated handcrafted hoop with a net intended to filter out the bad dreams of its user. Its likely origins are from the Midwestern tribes (Densmore, 1979), but it is currently widespread and is arguably one of the most recognized AI symbols today (Robbins, 2001). Both the vision quest and the dream catcher are common cultural traditions among Northern Plains AI communities.

Nightmares are a frequent sequelae of trauma and a frequent defining feature of Posttraumatic Stress Disorder (PTSD; Harvey, Jones, & Schmidt, 2003). One study of civilians found a 19% rate of nightmares among those with PTSD, compared with 4% for those without PTSD (Ohayon & Shapiro, 2000). The National Vietnam Veterans Readjustment Study (NVVRS) found that 52% of combat veterans with PTSD reported nightmares, compared to rates of 5% for combat veterans without PTSD, 6% for Vietnam era veterans, and 3% for civilian subjects (Neylan et al., 1998). Trauma-related nightmares have been shown to be associated with sleep disturbances and sleep related anxiety (Neylan et al.; Ohayon & Shapiro; Woodward, Arsenault, Murray, & Bliwise, 2000). Recent studies indicate that trauma-related nightmares may be prognostic indicators for the development of PTSD among those exposed to trauma (Harvey & Bryant, 1998; Koren, Arnon, Lavie, & Klein, 2002).

Although limited, the available data indicate that trauma and PTSD are among the most prevalent and pressing mental health problems for AI populations. A recent large-scale study of a Southwest and 2 closely related Northern Plains tribes found that AIs were more often exposed to trauma than were others in the U.S.: Over 60% reported lifetime exposure to at least 1 traumatic event (Manson, Beals, Klein, & Croy, 2005). Overall, PTSD prevalence rates varied by community and gender, with lifetime PTSD ranging from 8-19%, the upper ranges reported for other populations (Beals et al., 2005; Kessler et al., 1994). Past research with AI veterans has documented significant disparities in the prevalence and treatment of PTSD (Beals et al., 2002; Gurley et al.,

2001; National Center for Post-Traumatic Stress Disorder and the National Center for American Indian and Alaska Native Mental Health Research, 1996). The American Indian Vietnam Veterans Project (AIVVP), which examined the prevalence of PTSD and comorbid psychiatric conditions among veterans in multiple reservations in the western United States, found high rates of PTSD (31% current, 59% lifetime), as well as high rates of alcohol abuse and dependence (72% current, 84% lifetime; National Center). PTSD was much higher in AIs than in their white counterparts (Beals et al., 2002). Lack of access to care, especially for those in rural location, has been shown to be a critical barrier to care for AI veterans (Westermeyer, Canive, Thuras, Chesness, & Thompson, 2002).

Despite mounting evidence of the problems of trauma and PTSD, and the important cultural role of dreams, no work to date has directly examined nightmares in trauma and PTSD among AIs. This paper represents a preliminary exploration of nightmares in trauma and PTSD among Northern Plains AI veterans. Data drawn from mixed sources (qualitative, quantitative, epidemiological and clinical) is used to explore nightmares in both breadth and depth. After a description of study methods, epidemiological data are presented. Qualitative material drawn from the Northern Plains is then discussed to illustrate clinical and cultural contexts of nightmares. The paper concludes with clinical recommendations and directions for future research.

Background and Methods

This paper presents data from two sources. Epidemiological data on Northern Plains AI veterans is presented from the AIVVP, the largest study ever conducted of AI veterans. The AIVVP replicated the Congressionally mandated NVVRS, which included only a few Indian veterans (Beals et al., 2002). To add context, clinical materials from the Northern Plains are presented in the form of a brief cultural overview of dreams and a case discussion. This material is drawn from a series of clinics administered by the University of Colorado Denver's Centers for American Indian and Alaska Native Health (CAIANH) in partnership with the Department of Veterans Affairs. These clinics utilize live interactive videoconferencing–telepsychiatry–to provide ongoing treatment in the form of medication management and individual and group psychotherapy to AI veterans struggling with PTSD in multiple reservation communities in the Northern Plains. Details of these clinics can be found elsewhere (Shore & Manson, 2004a, 2004b, 2005).

The American Indian Vietnam Veterans Project: Method and Analyses

The AIVVP was conducted between 1993 and 1994 by the National Center for American Indian and Alaska Native Mental Health Research (NCAIANMHR). The AIVVP data consisted of AI samples which included male Vietnam theater veterans from 3 closely related Northern Plains tribes and a Southwest tribe. The selection of these specific groups maximized cultural diversity while preserving sufficient power to allow for statistical comparisons. The sampling strategy used tribal rolls to identify all recognized members of a given tribe. From these rolls, men born between 1930 and 1958 were selected, covering over 95% of men age-eligible for service during the Vietnam era. Inclusion in the sample required verification of the respondent's veteran status and current residence on or near the reservation. Written informed consent was obtained from each participant after a description of the project was provided.

The AIVVP study used a two-stage design (Dohrenwend, 1990): a lay-administered interview of a population-based sample, followed by a clinical interview of a subsample of the lay sample. Only data from the Northern Plains lay interview respondents ($n = 305$) were used in these analyses. The lay interview included a comprehensive assessment of the veterans' pre-military, military, post-military, and current status.

Trauma and PTSD

AIVVP asked respondents about stressful and traumatic life events. Those respondents who reported at least one qualifying traumatic life event were eligible for a lifetime diagnosis of PTSD. The Composite International Diagnostic Interview (CIDI) was the primary diagnostic assessment instrument used in AIVVP, and, for this study, PTSD diagnoses were determined using the CIDI criteria. Combat-related PTSD was indicated for those respondents whose PTSD diagnosis was linked to a combat-related traumatic experience. Using information for each respondent regarding lifetime experiences of traumatic events and lifetime diagnoses of PTSD, the following four mutually-exclusive groups were created: respondents who reported no traumatic experiences; respondents who reported at least one qualifying traumatic experience but did not have a lifetime diagnosis of PTSD; respondents who had a lifetime diagnosis of non-combat related PTSD; and respondents who had a lifetime diagnosis of combat-related PTSD.

For each respondent with at least one qualifying traumatic event, we counted the number of PTSD symptoms they endorsed (out of a possible 17 symptoms). We then compared the mean number of PTSD symptoms among the trauma/no PTSD group, the PTSD (non-combat related) group, and the combat-related PTSD group to determine if these veterans' particular experiences were related to PTSD status.

Post-service sleep disturbance experiences

Respondents were administered the Mississippi Scale for Combat-Related Posttraumatic Stress Disorder (Keane, Caddell, & Taylor, 1988), which included questions about the occurrence of the following sleep disturbances since release from active military service: nightmares of experiences in the military that really happened; dreams at night that were so real they woke in a cold sweat; daydreams that were very real and frightening; afraid to go to sleep at night; and had trouble sleeping. Respondents indicated the frequency of each event using a scale from 1 to 5: 1 = never, 2 = rarely, 3 = sometimes, 4 = frequently, and 5 = very frequently. For ease of reporting and statistical comparisons, responses were grouped as follows: never, rarely/sometimes, and frequently/very frequently.

Data analyses

Data management and variable construction were accomplished using SPSS (SPSS, 2003). Survey (svy) procedures in Stata were used for all analyses to account properly for sample weights and design effects of the AIVVP data (StataCorp, 2003). Chi-square statistics were used to identify statistically significant relationships between trauma/PTSD level and post-service experiences.

Results

The AIVVP included 305 respondents from the Northern Plains, all of whom were men. The average age at the time of the interview was 47 years. Nearly half (47%) were married, 15% were college graduates, and 59% were working at least part-time. The average age of entry into Vietnam was 21 years, and the respondents served there an average of 14 months.

Only 20% of the sample did not report any qualifying traumatic experiences; 52% reported at least one qualifying traumatic experience but did not meet the criteria for PTSD; 7% had PTSD (non-combat related); and 22% had combat-related PTSD.

Table 1 presents the prevalence of post-service nightmare and sleep disturbance experiences stratified by these trauma and PTSD groupings. In general, the prevalence of frequent/very frequent nightmares and sleep disturbance was lowest for those respondents who reported no qualifying traumas and highest for those who had PTSD; individuals who had combat-related PTSD often reported the highest rates. For each type of nightmare or sleep disturbance experienced, there was a statistically significant association between the frequency of the experience and the trauma/PTSD grouping. Frequency of nightmares and sleep disturbance increased with increasing trauma/PTSD severity.

Table 1
Nightmares and Sleep Disturbance Experiences among AIVVP Veterans
in the Northern Plains^a

	No Trauma		At Least 1 Qualifying Trauma		PTSD	
	N	%	N	%	N	%
Post-service experience						
Nightmares of experiences in the military						
Never	20	(33.9)	25	(16.0)	4	(19.1)
Rarely/sometimes	33	(55.9)	108	(69.2)	12	(57.1)
Frequently/very frequently	6	(10.2)	23	(14.8)	5	(23.8)
Dreams so real that wake in cold sweat						
Never	27	(45.8)	50	(32.1)	5	(23.8)
Rarely/sometimes	30	(50.8)	88	(56.4)	11	(52.4)
Frequently/very frequently	2	(3.4)	18	(11.5)	5	(23.8)
Daydreams real and frightening						
Never	32	(54.2)	59	(37.8)	2	(9.5)
Rarely/sometimes	24	(40.7)	90	(57.7)	17	(81.0)
Frequently/very frequently	3	(5.1)	7	(4.5)	2	(9.5)
Afraid to go to sleep at night						
Never	31	(52.5)	71	(45.2)	3	(14.3)
Rarely/sometimes	26	(44.1)	78	(49.7)	15	(71.4)
Frequently/very frequently	2	(3.4)	8	(5.1)	3	(14.3)
Have trouble sleeping						
Never	26	(43.3)	51	(32.7)	2	(9.5)
Rarely/sometimes	26	(43.3)	72	(46.2)	13	(61.9)
Frequently/very frequently	8	(13.4)	33	(21.1)	6	(28.6)
Total (row%)	60	(19.7)	158	(51.8)	21	(6.9)

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Table 1, continued

	Combat PTSD		Total		p-value ^b
	N	%	N	%	N %
Post-service experience					
Nightmares of experiences in the military					
Never	2	(3.0)	51	(16.9)	
Rarely/sometimes	31	(47.0)	184	(60.9)	
Frequently/very frequently	33	(50.0)	67	(22.2)	< 0.001
Dreams so real that wake in cold sweat					
Never	2	(3.0)	84	(27.8)	
Rarely/sometimes	39	(59.1)	168	(55.6)	
Frequently/very frequently	25	(37.9)	50	(16.6)	< 0.001
Daydreams real and frightening					
Never	8	(12.1)	101	(33.4)	
Rarely/sometimes	39	(59.1)	170	(56.3)	
Frequently/very frequently	19	(28.8)	31	(10.3)	< 0.001
Afraid to go to sleep at night					
Never	7	(10.6)	112	(37.0)	
Rarely/sometimes	49	(74.2)	168	(55.4)	
Frequently/very frequently	10	(15.2)	23	(7.6)	< 0.001
Have trouble sleeping					
Never	4	(6.1)	83	(27.4)	
Rarely/sometimes	32	(48.5)	143	(47.2)	
Frequently/very frequently	30	(45.4)	77	(25.4)	< 0.001
Total (row%)	66	(21.6)	305	(100.0)	

^aSample sizes are unweighted; percents are weighted to account for the complex sampling design

^bp-values resulting from a chi-square test between the 3-level post-service experience and the 4-level trauma/PTSD variable

The combat-related PTSD group had a mean PTSD symptom count of 12.5 (95% CI=[11.8, 13.3]), which was significantly higher than the mean symptom count for the non-combat related PTSD group (9.3, 95% CI=[7.9, 10.7]) and the trauma/no PTSD group (3.7, 95% CI=[3.1, 4.2]). The mean PTSD symptom count for the PTSD group was also significantly higher than that for the trauma/no PTSD group. These significant differences indicate an increasing level of severity from the trauma/no PTSD group through the combat-related PTSD group.

To further explore the types of combat experiences associated with nightmares, the prevalence of reported nightmares (ever) was considered for those respondents who reported certain types of war-zone stressors: atrocities and violence, combat, deprivation, and loss

of meaning and control. The prevalence of reported nightmares was high among all groups, with 100% of those who experienced atrocities and violence reporting nightmares. The lowest percent of nightmares was seen among those who experienced loss of meaning and control (94%).

Dream Themes in the Northern Plains

We now turn our attention to material from the AIANP telepsychiatry clinics. This material is taken from work spanning 5 different Northern Plains tribes. It is drawn from clinical interactions with patients as well as larger work and discussion within these communities. Even within each tribe there is a wide diversity of beliefs about the meaning and context of dreams. Additionally, individual patients exhibit an array of beliefs about their dreams and nightmares, which may or may not incorporate wider meanings found in the community. Regardless, among those patients with traditional cultural identity, several themes emerge about dream/nightmare content and function. These include: 1) Certain dreams may contain messages for the dreamer; 2) Spirits, particularly of those deceased, may visit and communicate through dreams; and 3) Dreams may contain premonitions about future events. To illustrate the context of these themes and the issues of nightmares, we present below a case involving a specific Northern Plains veteran's nightmare experience.

A Northern Plains Nightmare

An AI Vietnam veteran from a rural Northern Plains reservation community was being seen in clinic for chronic severe combat-related PTSD and alcohol dependence in partial remission. The veteran, in his mid-fifties, had experienced long-standing sleep problems, including intermittent nightmares, since Vietnam. In reaction to an anniversary of a firefight in Vietnam, the patient began to increase his consumption of alcohol over a 2- to 3-week period. He reported that his increasing use of alcohol was largely an attempt to help him sleep and "blank out" his nightmares. During the period of increased alcohol consumption his sleep improved, but his drinking began to cause problems in his personal life. Because of these problems and concern voiced by his family, the patient stopped drinking and resumed his abstinence. Approximately 1 week after stopping drinking, the patient began to experience a recurring nightmare 1-2 times per night.

In the nightmare, a friend who was in the patient's unit in Vietnam would appear to him. This friend had been killed in a firefight in which the patient had also participated. The patient expressed guilt that he was not able to do more to protect his friend. In the firefight his friend's face had been "blown away" by incoming rounds; in his dreams the friend only had half a face. In this dream the friend would appear to be attempting to communicate to the patient. This dream would often cause the patient to awake suddenly in a cold sweat. When asked by his psychiatrist the meaning and significance of the dream, the patient explained that he believed his friend's spirit was trying to communicate with him. The patient expressed frustration that he did not know why his friend's spirit was trying to contact him and increased the patient's guilt over feeling he had not done enough to protect his friend in the firefight.

The psychiatrist prescribed an antihistamanergic sleeping medication, continued supportive therapy, and encouraged the patient to visit a traditional healer in the community with whom the patient had a relationship. The medication helped the patient get to sleep faster but did not change the frequency of the nightmares. The patient visited the traditional healer, who recommended several traditional treatments, including sweat lodge ceremonies. The patient followed and completed the healer's recommendations, as well as continuing supportive therapy with his psychiatrist. Over the course of 2 to 3 weeks, the nightmares gradually decreased and then ended. The patient felt that, through the treatments he had received, he had been able to comfort and put his friend's spirit at ease; he also reported a decrease in guilt over his friend's death.

Conclusion

Data from AIVVP demonstrate that nightmares and sleep disturbances are common experiences for Northern Plains veterans. Among Northern Plains veterans with combat-related PTSD, 97% reported having nightmares; 81% of those with non-combat related PTSD reported nightmares; and 84% of those with trauma exposure but no PTSD reported nightmares. These rates were much higher than the NVVRS rates of 52% for combat-related PTSD and 5% for combat veterans without PTSD (trauma exposure group; Neylan et al., 1998). The baseline rate of nightmares in this sample (65%) was notably higher

than the NVVRS rate, as well (5-6%; Neylan et al.). These higher rates for this sample are consistent across sleep domains. For example, 82-86% of the Northern Plains veterans with PTSD had problems with sleep onset, compared with 44% in the NVVRS (Neylan et al., 1998).

There are several possible explanations for these findings. The higher baseline rates of nightmares and sleep disturbances in the AIVVP sample for Vietnam-era veterans without trauma or PTSD likely contribute to the higher rates found in trauma and PTSD. Given the importance of dreams in traditional cultures, it is possible that Northern Plains veterans are more aware of their dreams and dreams' content and may, therefore, be more likely to remember their nightmares and report them. The construct of PTSD for Northern Plains veterans may be characterized by higher rates of nightmares and related sleep disturbances when compared to other populations. Additionally, the AIVVP data demonstrate that nightmares and sleep disturbances increase in frequency with increasing trauma/PTSD severity. Intuitively, the more horrific the event the individual experiences, the more likely it is to cause nightmares. This idea is supported by a study by Mellman and colleagues (2001) which showed that subjects who reported distressing dreams had more severe concurrent PTSD symptoms.

The case highlights common thematic issues in working with Northern Plains veterans who experience nightmares and illustrates the complex relationship between biological (withdrawal, PTSD) and cultural (spirit visitation) contexts of nightmares. It also serves as an example of how certain patients may benefit from both traditional and Western medical approaches. Western approaches (medication, education, and supportive treatment) helped with sleep issues and concurrent alcohol use, and provided a supportive framework for the patient's engagement in traditional treatment. The traditional healer provided context and meaning for the patient's nightmares as well as providing culturally prescribed treatments to address the nightmares.

These data have several important clinic implications for those working with AI veterans with PTSD. Clinicians should be aware in general of the importance of dreams for AI populations, and should attempt to learn more about the beliefs and traditions around dreams for the specific tribes with which they may be working. Clinicians should also be aware of the high rate of nightmares and sleep disturbances among AI veterans.

When working with individual patients, clinicians should be careful to not stereotype and to acknowledge that a wide diversity of beliefs will exist for dreams and nightmares within any given community. Each patient's specific cultural background should be assessed during an initial visit. This assessment should gauge the patient's identification with and knowledge of traditional culture, cultural beliefs and practices engaged in by the patient and family, and whether the patient speaks his or her Native language. The patient's beliefs about dreams—their meaning, context, function, and relationship to spiritual beliefs—should be discussed. All patients, including those without a history of trauma, should be asked about nightmares. If a patient reports nightmares, further details about content, frequency, and themes should be elicited. Finally, for those patients with nightmares who endorse strong cultural identity and/or attribute cultural meanings to their nightmares, clinicians should strongly consider making referrals to a cultural consultant or traditional healer, or working directly with such a practitioner.

This paper has several limitations. First, it is unclear how generalizable the information presented here is to other AI veteran groups or populations. The absence of previous information for AIs in this area makes it challenging to place these findings in a larger context. It is important to know if the high baseline rate of nightmares in this sample is found in other AI veteran and civilians samples. Second, the ethnographic information presented here is drawn from observation and informal discussions rather than formal ethnographic work. Third, the AIVVP study was not specifically designed to examine nightmares (although neither was the NVVRS, on which the AIVVP was based and to which it has been compared here). Finally, there are several study design considerations in general for the AIVVP, discussions of which can be found in previous papers (Beals et al., 2002; Gurley et al., 2001).

We hope that these observations will stimulate inquiry into nightmares among AIs with trauma and PTSD. We know very little about the rates, frequency, and contents of nightmares in trauma and PTSD for AI veterans and civilian populations. More detailed ethnographic work focusing on the cultural context and meaning of nightmares is critical to understanding the phenomenon of dreams in trauma and PTSD. Most importantly, clinical techniques and protocols need to be developed to enhance culturally appropriate care with regard to nightmares. An exciting example of such work is a recent advance that entails short-term (12-session) insight-oriented therapy for AI adolescents aimed at helping them express unconscious conflicts and facilitate differentiation and mutuality (Robbins, 2001). In this process, the therapist uses a

dream catcher as a stimulus object to guide and structure the therapy. Could such a technique be adapted for AI veterans with PTSD to create a culturally oriented treatment around dreams and nightmares? In order to move forward with culturally adapted interventions, much more must be understood about the meaning and context of nightmares in trauma and PTSD for AI populations

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